may be the ſame, when the ſame ſpace is gone over with a great velocity, as with a ſmall one.

LXXI. *Obſervationes Eclipſium Satellitum Jovis habitæ Uliſſipone in Regali Collegio Beatiſſimæ Virginis à neceſſitatibus, dictæ à Joanne Chevalier, Præſbytero Seculari Congregationis Oratorii, Anno* 1753.

Read Feb. 14, 1754. DIE 30 Aprilis, cœlo clariſſimo, obſervavi, teleſcopio Gregoriano 6 pedum longitudinis, emerſionem primi ſatellitis è umbra Jovis, hora poſtmeridiana temporis veri $9^h\ 57'\ 48''$.

Die 24 Maii, iterum cœlo puriſſimo, obſervavi, eodem teleſcopio Gregoriano, emerſionem tertii ſatellitis ab umbra Jovis, hora poſtmeridiana temporis veri $8^h\ 19'\ 6''$.

LXXII. *Obſervatio Solis defectus Uliſſipone habita, in Æde Beatiſſimæ Virginis à neceſſitatibus, nuncupatæ à Joanne Chevalier, Præſbytero Congregationis Oratorii, die 26ª Octobris* 1753.

Read Feb. 14, 1754. HUNC ſolis defectum commodè, ac exactè obſervare potui, cœlo clariſſimo ac puriſſimo. Initium ac finem eclipſis teleſcopio 15 palmorum examinavi, digitos vero obſcurationis

rationis micrometro menſus ſum. Eodem tempore ſodalis meus phyſicæ profeſſor, eaſdem eclipſis phaſes obſervabat in ſpecie ſolis, in charta alba depicta, per alium tubum duabus lentibus inſtructum.

	Temp. ver. ant. merid. h	′	″
Initium eclipſis . . .	7	31	4
2 digiti obſcurationis . .	7	43	54
4 digiti	7	56	40
6 digiti	8	9	30
8 digiti	8	22	10
10 digiti	8	34	40
Major obſcuratio undecim digitorum	h	′	″
ac 5 min.	8	41	46
8 digiti	9	2	0
2 digiti	9	44	20
Finis	9	58	18

Prope tempus maximæ obſcurationis, luce ſolis notabiliter imminutâ, Jovem, Venerem, aliquaſque ſtellas, primæ ac ſecundæ magnitudinis, videre licuit. Mercurium tamen, propter ejus ad ſolem appropinquationem, aſpicere non potui.

Speculum catoptricum diametri trium palmorum, in cujus foco plumbum liqueſcit, & ex ligno flamma ſtatim excitatur, eadem phænomena efficiebat, cum ſolis digiti ſeptem jam obſcurati eſſent: poſt tempus tamen majoris phaſis, lignum in foco ſuſpenſum per aliquod temporis intervallum minimè combuſſit.

Tempore majoris obſcurationis aer frigeſcere cæpit,

valido flante vento à ſetemptrione; craſſique vapores aſcendere viſi ſunt è fluvio portuque vicino.

In thermometro domini de Reaumur, ſequentes mutationes obſervatæ fuere.

7^h 20′ Spiritus vini 12° & dimidium altitudinis ſupra terminum congelationis aquæ obtinebat.

h			o
8	12	. . . . .	13
8	30	. . . . .	$12\frac{1}{2}$
8	43	. . . . .	$12\frac{1}{4}$
8	55	. . . . .	$11\frac{3}{4}$
9	30	. . . . .	12
10	0	. . . . .	$12\frac{1}{2}$
10	40	. . . . .	$13\frac{1}{4}$

LXXIII. *An Account of ſome aſtronomical Obſervations taken at* Liſbon *by M.* John Chevalier *in the Year* 1753. *By* James Short, *M. A. and F. R. S.*

Read March 14, 1754. THIS gentleman mentions two emerſions of the ſatellites of Jupiter, *viz.* one of the firſt, and another of the third, both obſerved, in a very clear air, with a Gregorian teleſcope ſix feet long. Dr. Bevis, from a great number of obſervations, has computed *formulæ* of tables for the times of the immerſions and emerſions of the firſt ſatellite of Jupiter, and which times we have ſeldom found to differ from the obſervations above 10″: By com-